

H. FREEMAN.
STRAP-HINGE ATTACHMENT.

No. 170,843.

Patented Dec. 7, 1875.

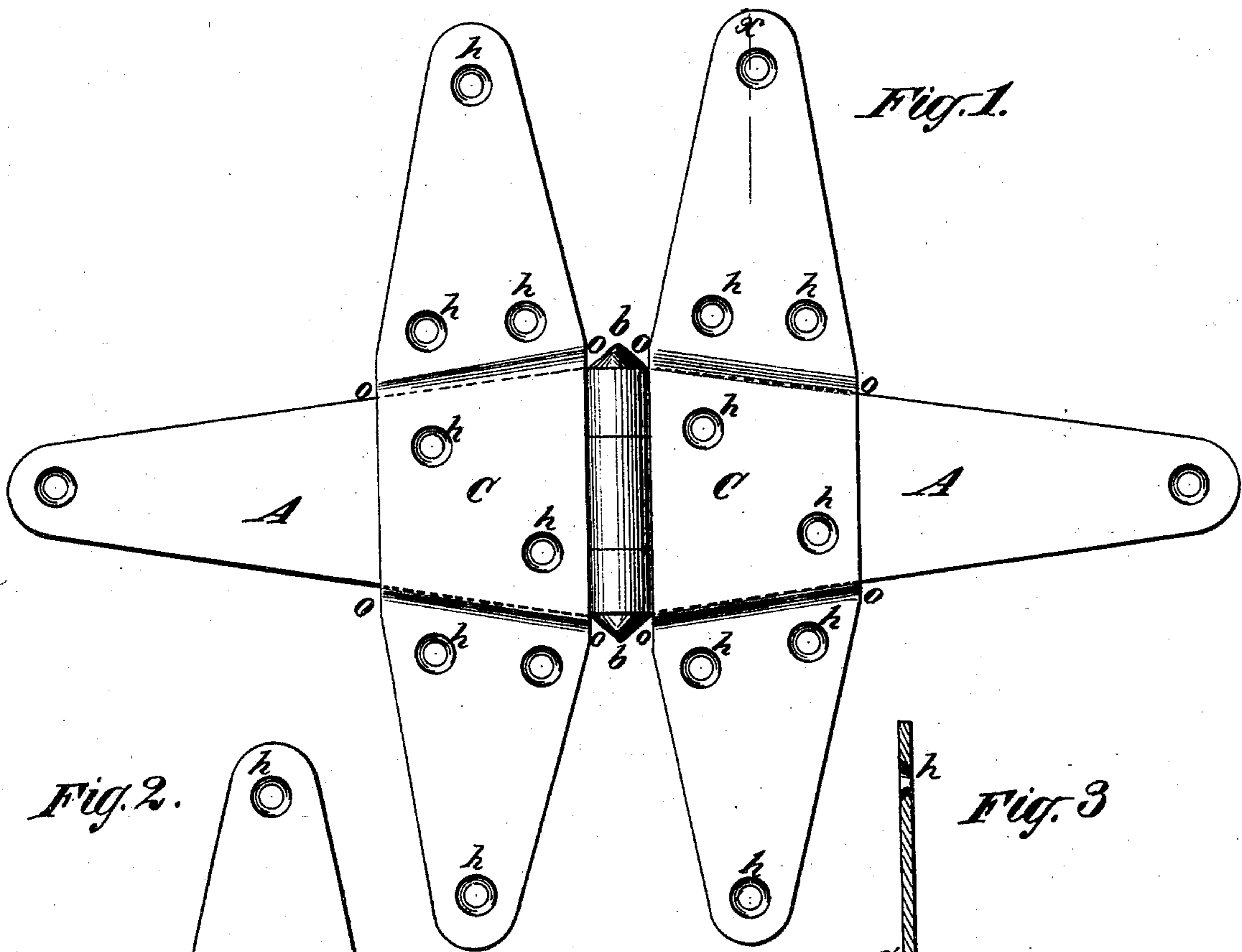


Fig. 1.

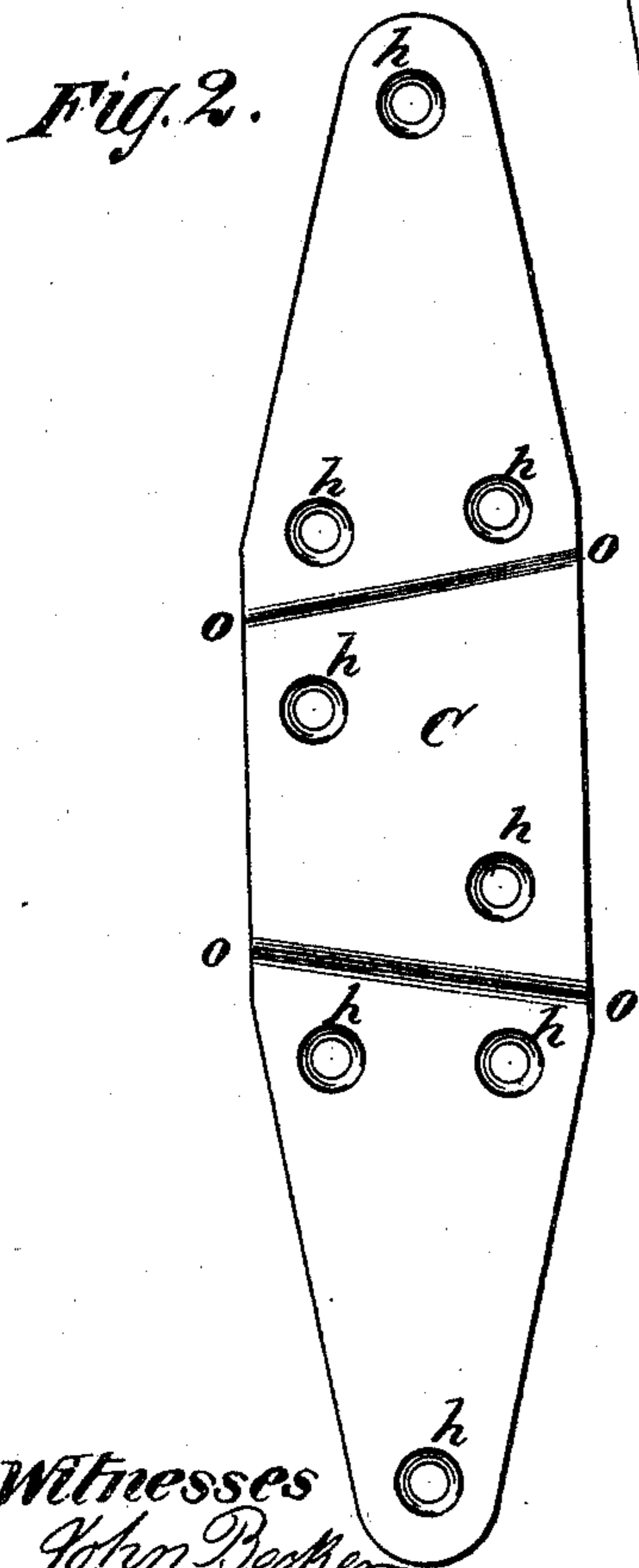


Fig. 2.

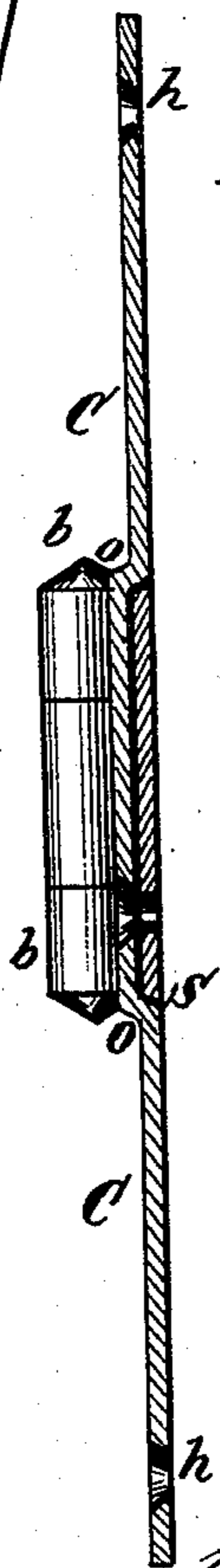


Fig. 3.

Witnesses
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UNITED STATES PATENT OFFICE.

HIRAM FREEMAN, OF PARKER'S LANDING, PENNSYLVANIA, ASSIGNOR OF ONE-HALF HIS RIGHT TO JOHN EATON, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN STRAP-HINGE ATTACHMENTS.

Specification forming part of Letters Patent No. **170,843**, dated December 7, 1875; application filed November 10, 1875.

To all whom it may concern:

Be it known that I, HIRAM FREEMAN, of Parker's Landing, in the county of Armstrong and State of Pennsylvania, have invented an Improvement in Attachments and Brace-Plates for Strap-Hinges; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention consists in an improvement in attachments and brace-plates for strap-hinges, whereby I am enabled to attach such hinges much more firmly than they have hitherto been attached, and to place the screws or nails which ultimately receive and bear the weight of the door, lid, or gate, transmitted through the strap-plate and my improved brace-plate in such a way as to decrease the strain upon them and upon the wood or other material at and near the point where the said screws are inserted therein, and more uniformly distribute the strain upon the screws.

As the strap-plates of strap-hinges are ordinarily attached, it is necessary, in order to avoid cutting away too much of the metal at any point, to distribute the countersunk holes which receive the said screws or nails in such a way that only a very few of them are placed near the hinges which connect the straps. Therefore, those screws or nails nearest the hinges are subjected to a much greater strain than the others, which, after a short lapse of time, ordinarily causes the screws or nails nearest the hinges to partially crush the material in which they are inserted, perhaps to loosen and drop out, and in nearly all cases to permit the sagging of the door, gate, or lid supported by said strap-hinges.

As hitherto constructed, strap-hinges can be relied upon to support heavy doors, gates, or lids firmly only when the strap-plates of the said strap-hinges are made large and strong, so as to admit of the insertion of many small screws, or of a less number of large and strong screws.

By the use of my improved attachment and brace-plate I am enabled to make a strap-hinge that shall firmly and securely support a given weight with much less metal and with fewer or smaller and less expensive screws.

In the drawing, Figure 1 is a front view of a strap-hinge with my improved brace-

plates placed in proper position upon it to afford the required additional support. Fig. 2 is a front view of the said brace-plate detached from the strap-hinge. Fig. 3 is a section through the said brace-plate and one of the strap-plates of the strap-hinge, the section being upon the line *x x*.

Similar letters refer to similar parts in all the figures.

The general form of the brace-plate C is that of an oblong plate tapered off toward its opposite extremities; but any other suitable or ornamental form may be adopted. In the plate thus formed may be cast, punched, or drilled as many holes, *h*, countersunk or otherwise, as may be required for the attachment of the plate. The brace-plate C is also formed with an offset, as shown at *o o o o*, to allow it to be superimposed upon the strap-plate A of the strap-hinge, and at the same time to rest with as nearly a uniform pressure as possible upon both the said strap-plate A and the surface of the door, lid, or gate, to which the said strap-plate is bolted, nailed, or screwed. The lower shoulder *s*, formed by the offset, abuts closely against the under edge of the strap-plate A, as shown in Fig. 3, and as close as possible to the hinge *b*, which connects the two strap-plates. Therefore the said strap-plates cannot sag without causing all the screws inserted through the brace-plate C to yield in the body of the material into which they are inserted, the said screws all acting in conjunction and equally to support the strap-plate of the hinge.

The strap-plate A of the strap-hinge may, if desired, pass through a slit in the brace-plate C, in which modification of my improvement both the strap-plate and that portion of the brace-plate superimposed upon the strap-plate will require to be offset.

I claim—

The combination, with the strap-plates A A of the hinge, of the brace-plates C C, offset on the edges of the strap-plates, and serving as attachments and braces to the hinge, substantially as herein described.

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Witnesses:

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